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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,739

12/15/2005

Devis Iellici

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49443 7590 04/03/2008  
Pearl Cohen Zedek Latzer, LLP  
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12th Floor  
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EXAMINER

LE, HOANGANH T

ART UNIT

PAPER NUMBER

2821

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,739	<b>Applicant(s)</b> IELLICI ET AL.	
	<b>Examiner</b> HoangAnh T. Le	<b>Art Unit</b> 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/17/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 7,8, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 7, line 5, "the first" has no antecedent basis.

In claim 8, line 4, "the first" has no antecedent basis.

In claim 10, line 2, "the second antenna" has no antecedent basis.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3 and 5-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Bit-Babik et al (the US 2003/0043075, cited by Applicant).

Regarding claim 1, the Bit-Babik et al reference teaches in figure 13 an integrated antenna device comprising a first, dielectric antenna component 210 and a second, electrically-conductive antenna component, wherein the first and second components are not electrically connected to each

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other but are mutually arranged such that the second component is parasitically driven by the first component when the first component is fed with a predetermined signal 206.

Regarding claim 2, wherein the first antenna component comprises a dielectric resonator antenna 210 formed as a dielectric pellet mounted on a first side of a dielectric substrate 202 and provided with a feeding mechanism, a second, opposed side of the dielectric substrate being provided with a conductive ground plane 204 covering at least an area corresponding to an area on the first side occupied by the pellet. 3.

Regarding claim 3, wherein the first antenna component comprises a high dielectric antenna formed as a dielectric pellet mounted on a first side of a dielectric substrate and provided with a feeding mechanism (figure 13).

Regarding claim 5, wherein the second antenna component is a patch antenna, slot antenna, monopole antenna, dipole antenna or' planar inverted-L antenna (figure 15).

Regarding claim 6, wherein the first and second antenna components are configured to radiate at different frequencies (see abstract).

Regarding claim 7, wherein the first antenna component 210 comprises a dielectric pellet mounted on the first side of a dielectric substrate 202, a microstrip feed 206 located on the first side of the substrate and extending between the substrate and the dielectric pellet, and a conductive layer 204 formed on a second side of the substrate opposed to the first, wherein an aperture is formed in the conductive layer of the conductive layer is removed from the second side of the substrate at a location corresponding to that of the dielectric pellet (para. 0084).

Regarding claim 8, wherein the first antenna component comprises a dielectric antenna 210 comprising a microstrip feed 206 located on a first side of a dielectric substrate, a conductive layer formed on a second side of the substrate opposed to the first and having an aperture formed therein, wherein a dielectric pellet is mounted on a second side of the substrate within or at least overlapping the aperture (para. 0084).

Regarding claim 9, wherein the second antenna component is located adjacent the first antenna component (figure 15).

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Regarding claim 10, wherein the second antenna extends over a top surface of the first antenna component (figures 19-20).

Regarding claim 11, wherein the first antenna component is adapted to radiate at a frequency lower than the second antenna component (para. 0079).

Regarding claim 12, wherein the first antenna component is adapted to radiate at a frequency higher than the second antenna component (para 0090).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over in view of Bit-Babik et al Kingsley et al (the US Patent No. 7,253,789).

Regarding claim 4, the Bit-Babik et al reference teaches every feature of the claimed invention, excluding the first antenna component comprising a dielectrically loaded antenna.

The Kingsley et al reference teaches in figure 10 an antenna component comprising a dielectric loaded antenna in order to improve the resonance characteristics of the antenna (col. 1, line 65- col. 2, line 3).

Since one of ordinary skill in the art would recognize the benefit of improving the resonance characteristics of the antenna, it would have been obvious to provide Bit-Babik et al with the first antenna component comprising a dielectrically loaded antenna as taught by Kingsley et al.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HoangAnh T. Le whose telephone number is (571) 272-1823. The examiner can normally be reached on 8:00am-4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Owens can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HoangAnh T Le/  
Primary Examiner, Art Unit 2821